**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| In the Matter of: | ) | |
| | ) | |
| Digital Broadcast Content Protection | ) | MB Docket 02-230 |

# REPLY COMMENTS OF DIGITAL TRANSMISSION LICENSING ADMINISTRATOR, LLC


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## INTRODUCTION

The Digital Transmission Licensing Administrator LLC ("DTLA") respectfully submits this Reply in response to the Further Notice of Proposed Rulemaking ("FNPRM") in the Report and Order issued in above-captioned proceeding, dated November 4, 2003 ("R&O").[1]

In its Comments, DTLA presented to the Commission the reasons why market-based criteria are an essential and logical method of attaining certification of protection technologies for use in connection with Unscreened and Marked Content, and noted that such criteria could be supplemented with additional alternative means of approval in the form of Functional Criteria. DTLA is pleased to note the strong support for market-based criteria in Comments filed by the Motion Picture Association of America, and by the IT Coalition. These three sets of Comments agree that market-based criteria address important considerations not present in a pure technology-based analysis, and that market-based criteria, together with the additional alternative of Functional Criteria, can maximize choices for manufacturers, content owners and consumers.

As the IT Coalition observed, "Adoption of [market criteria] would allow for certification of technologies that may be adopted in the market based on considerations not fully comprehended in purely functional criteria, thereby furthering the goal of maximizing technology choices available to manufacturers." IT Coalition Comments at 9. Moreover, as DTLA noted, inasmuch as the purpose of the regulations is the protection of digital terrestrial television broadcast content, there is no reason to deny certification of any technology acceptable to the owners of such content under market-based criteria. Adoption of the Joint Proposed Criteria (attached to DTLA Comments as Appendix B) will provide technology proponents with four ways to attain certification both with the approval of content owners and, even without the approval of content owners (or, indeed, even over their objection) upon proof of technological effectiveness. DTLA therefore again urges the Commission to adopt the market-based criteria submitted by DTLA as Appendix B to its Comments.

In answering the Commission's questions concerning Functional Criteria, DTLA observed that such criteria could be useful in addition to the market-based criteria, as an alternative certification method, and proposed specific language for Functional Criteria and submitted comments on several categories of criteria for consideration by the Commission. With respect to the proposals for Functional Criteria, DTLA comments below on the thrust of the specific proposals of the IT Coalition, with which DTLA largely concurs, and certain comments and proposals of the MPAA with which DTLA takes issue. DTLA further opposes the MPAA

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[1] Related to this proceeding, on March 1, 2004, DTLA submitted to the Commission its Certification as a digital output protection technology. Since submitting that Certification, DTLA has announced to its Adopters significant new developments. DTLA has mapped DTCP to two additional interfaces, namely Bluetooth and Op-iLink (for 1394). DTLA also has approved a secure recording protection technology, known as CPS for BD-RE, for Blu-Ray rewritable optical discs. Detailed information concerning these developments, including informational versions of Specifications, as applicable, will be made available soon on the DTCP website, http://www.dtcp.com

attempt to justify selectable output control, as to which DTLA is vehemently opposed, and addresses at some length the misguided suggestion of two commenters that the Commission should exercise regulatory control over the detailed terms and conditions of license agreements for proposed technologies, rather than allow free market competition based on license provisions.

## I. Functional Criteria and Related Proposals

In addition to the support for the market-based criteria, DTLA notes that virtually all commenters favored adoption of some form of functional criteria. The Functional Criteria proposal closest to that of the DTLA is that of IT Coalition. We comment below on certain key differences between the proposals, and reply to the comments of others concerning issues relating to the criteria for certification of a proposed digital output or recording protection technology.[2]

### A. Scope

As DTLA observed in its Comments, the scope of redistribution control provided by a protection technology should be sufficient to achieve the purpose of this proceeding.[3] The Commission has stated its view that "the express goal of a redistribution control system for digital broadcast television [is] to prevent the indiscriminate redistribution of such content over the Internet or through similar means." R&O at 6 ¶ 10.[4]

In DTLA's view, the Scope of this proceeding is best defined according to the ability of particular technologies to prevent such indiscriminate redistribution over public networks., *i.e.,*

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[2] In addition, DTLA appreciates that the interim certification procedures promulgated by the Commission serve the salutary purpose of enabling technology approvals on an accelerated basis. However, DTLA can envision the possibility for prejudice under these interim procedures if an entity were to file objections for reasons unrelated to assuring protection against indiscriminate redistribution of Unscreened and Marked Content. As examples, an entity might file objections to the technologies of others so as to delay certification of its competitors' technologies, while obtaining prompt certification for its own; or an entity might object to all proposed technologies in an effort to slow down implementation of the regulations. Although DTLA does not suggest that any entity be denied the right to file legitimate objections to the effectiveness of a technology, the Commission should take care that its procedures not be abused by those with other agendas.

[3] The Commission's regulations thus should establish a floor for protection, but should not limit the right of technology proponents or manufacturers to propose or implement technologies that offer a greater scope of protection. Such decisions are best left to the marketplace.

[4] DTLA believes that this reasonable goal articulated by the Commission differs significantly from the characterization by the MPAA, which suggests that the goal of this proceeding should be to guarantee a level of protection for digital television broadcasts that is "equivalent to other secure forms of distribution." MPAA Comments at 5.

outside of home and personal networks. In that connection, in response to the Commission's inquiry, DTLA is pleased that all commenters agreed that the Commission should not define a Personal Digital Network Environment (PDNE). Efforts to define a PDNE would, in DTLA's view, necessarily be over- or under-inclusive, and would unintentionally exclude technologies that, in the ordinary course of their operation, provide effective protection for broadcast content, but in unusual or fringe cases could be misused (*e.g.,* by intentional sharing of private passwords or running wires between residences). DTLA believes that the Commission, rather than focusing on such anomalous circumstances, should approve technologies that address the probable scenarios of normal and foreseeable usage by the average consumer, so as to provide adequate and effective protection for Unscreened and Marked Content.

DTLA disagrees with the MPAA suggestion that the focus of unauthorized redistribution should be on the unauthorized redistribution beyond a "local environment" consisting of a set of devices "within a tightly defined geographic area around a Covered Product." MPAA Comments at 7-8. If a proposed technology can establish secure communications among personal devices in remote locations (*e.g.*, a laptop in a hotel room, a car, a boat or a vacation home accessing content stored on a home server), there is no reason why consumers should be precluded from using such technology to access their stored protected DTV broadcast content.

### B. Security

The DTLA Comments noted, in response to an earlier criteria proposal from certain IT industry companies, that the Commission should be empowered to approve a technology that is capable of being implemented in software only, hardware only, a hybrid of the two, or in both. DTLA notes that its Comments appear to be consistent with the proposed criteria from the IT Coalition ("A digital output protection method *may* be implemented in software *or* hardware *or* in any combination of the two.") IT Coalition Comments at 11 (emphasis added). Notwithstanding these similarities, DTLA continues to prefer its iteration of the Security criterion for two reasons. First, the DTLA proposal is more specific, and such detail we believe will provide better guidance to device manufacturers and software developers. Second, we note that the IT Coalition proposal refers to the need to conform to "applicable compliance rules." This may not be appropriate in the case of a proprietary technology that is not intended to be licensed to third parties and, hence, would neither have nor need associated compliance rules. DTLA believes that such a restriction would not have been intended by the IT Coalition, and recommends that the Commission adopt the DTLA proposal so that the regulations will not be ambiguous with respect to the right to use either licensed or proprietary technologies.

### C. Strength

The DTLA and IT Coalition proposals on Strength conceptually are very similar. The most significant distinctions between them appear to be that DTLA proposes that regulations should state a specific minimum cryptographic key length (*i.e.*, 56 bits) for technologies that rely upon encryption, and that DTLA opposes any requirement or preference for "peer-reviewed" algorithms. First,. DTLA believes specificity regarding key length provides helpful guidance to engineers and provides a reliable "safe harbor" for both future technologies and technologies already in use in the marketplace. Second, DTLA noted in its Comments that proprietary algorithms and algorithms not previously subjected to peer review are employed currently in the

marketplace and are highly effective for content protection. DTLA Comments at 10. Such current and future algorithms should be acceptable so long as they provide effective protection. DTLA believes that the IT Coalition did not intend to require "peer review" in proposed criterion, which uses the word "should" (as opposed to "shall" or "must," used elsewhere in that criterion) in relation to the suggestion regarding peer review. DTLA nevertheless believes that its proposed "Strength" criterion is preferable as it avoids any implication that the FCC requires or prefers public algorithms (or, conversely, discriminates against non-public algorithms), and is more specific and clear on these and other key points. Accordingly, DTLA requests the Commission to adopt the "Strength" criterion proposed in its Comments.

### D. User Accessible Bus

The DTLA proposal with respect to the protection of compressed protected DTV content over a user accessible bus specifically would apply the general robustness standards adopted by Commission regulations, rather than the more abstract requirement of "appropriate robust protection" proposed by the IT Coalition. Again, DTLA believes that more specific guidance would benefit implementers and remove any uncertainty or doubt that the robustness standard for this one aspect of a device somehow might be more stringent.

### E. Rights

DTLA noted in its Comments that a separate criterion for Rights seemed unnecessary, in that the applicable rights are coextensive with the Scope. Further, DTLA's Comments observed that it was inadvisable to require use of a redistribution control signaling method (*e.g.,* a redistribution control descriptor), so long as the technological protections applied to the content achieve the goal of redistribution control.[5] As one example, a CEA working group recently considered the use of a specific redistribution control/rights signaling flag in the DVI interface, and concluded that such a flag was unnecessary. Use of HDCP by itself accomplished the protection goal, and ensured that protected content would not be delivered downstream past the sink device receiving the protected content. Thus, there was no need for a separate rights signaling mechanism in that interface.

DTLA believes that, in light of this example and, potentially, other analogous cases, the Commission need not promulgate a separate criterion on Rights; but, should the Commission elect to do so, any criterion should only require that the redistribution control obligations relating to the Broadcast Flag and these regulations be carried forward, and nothing in such criterion should require the carrying forward either of specific rights information marking or of rights other than those embodied in the Broadcast Flag.

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[5] DTLA notes that this appears to be supported by the IT Coalition's proposed criterion on Rights, which appears to define the applicable rights that must be carried forward as "control of indiscriminate redistribution to the public," but does not indicate that such carriage must be accomplished through any type of marking or using any particular markup language or method. Nevertheless, for the reasons noted above and in our Comments, DTLA does not believe that such an express obligation to "carry forward" rights is necessary.

### F. Authentication

Both the DTLA proposed criteria and those of the IT Coalition agree on the essential point that, in the Commission's criteria, an acceptable technology could rely upon either explicit or implicit methods of authentication. This provides technology designers with necessary flexibility and, hence, expands the range of protection technologies that can be certified for use.

However, DTLA believes it is important for the Commission to clarify, as DTLA suggested in its Comments, that authentication merely ensures that a device provides some indicia of its compliance, such as knowledge of a secret or possession of a particular identifier or attribute. Authentication does not, and cannot, ensure compliance per se. Thus, any Authentication criterion should require only that a device obtain some verification or technical assurance that it is passing or exchanging the content to a device that indicates, through some technological credential or indicia, that it is authorized to implement the approved content protection method. In that regard, DTLA believes that the DTLA "Authentication" criterion more accurately reflects such concepts than the IT Coalition criterion, in which the first sentence, in DTLA's view, is too broadly stated.

### G. Compromise Recovery

DTLA noted in its Comments that the word "Revocation" may inadvertently have been used in the Report and Order in discrete contexts that should remain differentiated from one another. Thus, DTLA concurs with the comments of MPAA, Panasonic and others encouraging the Commission to adopt consistent nomenclature that distinguishes the separate concepts of "revocation" (*i.e.,* disabling access of an individual device); "renewability" (*i.e.,* upgrading a protection system in anticipation of or response to hacking); and "de-listing" or "de-certification" (or what the MPAA Comments refer to as "withdrawal," *i.e.,* the removal of a technology from among a list of authorized digital output or recording protection technologies).

DTLA moreover agrees with the IT Coalition Comments that the level of protection offered by a technology can be enhanced satisfactorily by either revoking or renewing "the ability of an individual device to receive Marked or Unscreened Content if the device's authentication keys or credentials have been compromised," and that both revocation *and* renewability attributes need not be required. DTLA further agrees with the IT Coalition comment that renewability of the protection system itself (as opposed to the disabling the ability of an individual device) should not be a requirement. *See* IT Coalition Comments at 12-13.

DTLA disagrees, however, with the Comments of the MPAA to the extent that they might be interpreted to suggest that both revocation and renewability should be required. *See* MPAA Comments at 9. Revocation and renewability each provide alternative effective ways to implement a partial remedy against outside attacks, and each has its own benefits, costs and consequences. For some technologies, particularly systems in devices that are connected to an external network, renewability is feasible and effective. For technologies implemented in stand-alone devices, revocation of individual devices may be a more practical and cost-effective solution that would not risk creating unintended backward incompatibilities with legacy devices. Technology renewability techniques typically impose requirements on consumers who have not

engaged in any unauthorized conduct, whereas revocation more narrowly targets particular devices implicated in conduct such as use of pirated device certificates.

As DTLA observed in its Comments, any requirement that a technology must include a renewability mechanism would be extremely exclusionary of an entire class of products, and would unnecessarily tilt the playing field in favor of software-based products inasmuch as standalone consumer electronic products may not be connected to the Internet and generally rely on hardware implementations that are not readily renewable or upgradeable. To the extent that some systems may be capable of one method but not the other, yet still provide adequate levels of protection, a flat rule requiring implementation of both methods would unnecessarily preclude certification of numerous useful and effective technologies that should be available for implementation. Therefore, the Commission should adopt the DTLA proposed criterion set forth in the DTLA Comments, which would provide manufacturers with alternative flexible means to respond either by revocation or renewability.

## II. Rescission, or "De-Listing"

Perhaps no aspect of the Commission's NPRM has a potentially greater impact on manufacturers and consumers than the possible withdrawal of certification of any particular content protection technology. As DTLA observed, such withdrawals should be implemented only prospectively, and only upon definitive and actual proof that the protections provided by the technology and associated enforcement means no longer meet the goal of preventing unauthorized redistribution outside of home and personal networks, including over the Internet, at a level of "keeping honest people honest."

In its initial submissions to the Commission, DTLA along with MPAA companies proposed, at the 30,000 foot level, that the Commission should address a standard by which approvals could be withdrawn only if a technology has been compromised to a degree that was "substantially higher" than the standard of "significantly compromised in relation to its ability to protect Unscreened Content and Marked Content from unauthorized redistribution" (which was the proposed standard required to disqualify the listed technology as a benchmark for comparison purposes in the third, "at least as effective" criterion). *See* Joint Proposed Criteria, attached as Appendix B to DTLA Comments. At the time of such submission, however, the 5C and MPAA companies, had not agreed on, and left to future discussions, what specific standard should apply with respect to the removal of a technology from what they called "Table A."

The MPAA Comments suggest that a technology's authorization be withdrawn if it is determined that the technology is "substantially compromised" with respect to its ability to protected Unscreened and Marked Content from unauthorized redistribution. However, DTLA believes that the phrase "substantially compromised," without more, is far too amorphous a standard, and will create an uncertain environment for design, introduction and maintenance of certified protection systems.

For that reason, DTLA in its Comments proposed specific criteria that would create an environment more conducive to both protection of content and investment in the creation of protection systems. DTLA notes that the criteria for de-listing proposed by the IT Coalition are

similar in many important respects to the proposals by DTLA. Each proposal shares the fundamental attributes that:

- The breach must be widespread
- The breach must irreparably impair the ability of the protection technology to serve its intended purpose
- The harm to consumers and device manufacturers from revocation must be outweighed by the harm to content providers and broadcasters of not revoking the authorization
- Any withdrawal of certification must be prospective only

Although the proposals each share these essential concepts, DTLA believes that the IT Coalition proposal may be too general in nature to give adequate guidance to technology proponents, manufacturers whose investment in a particular technology is placed at risk, consumers who will inevitably incur some inconvenience from rescission decisions, and to content owners. Therefore, DTLA respectfully submits that more specific proposal in Appendix A to the DTLA Comments is preferable to the IT Coalition draft.

In addition, in the event that such a de-listing is required by the Commission, manufacturers, software developers and retailers will require a grace period in which to continue to supply DTV products to the marketplace, while phasing in the design and implementation of an alternative certified protection technology. Thus, the Commission should promulgate a regulation that gives manufacturers and software developers a reasonable period of time in which to implement alternative technologies in DTV products while continuing to manufacture then-current products; that provides retailers a reasonable period of time to continue to sell such products; and that enables a smooth transition for end-users to shift to the use of the new technologies. Such a grace period is important to ensure sufficient supply of DTV products to the marketplace, and to avoid penalizing any market participant that made substantial investments in the certified technologies in accordance with Commission regulations.

## III. Cable Systems Should Not Use Encryption to Signal the Presence of the Broadcast Flag.

In its Comments, DTLA described the potential adverse consequences to the public interest should encryption of the digital basic tier be permitted so as to signal the presence of the Broadcast Flag.

MPAA suggests that triggering of DTCP can be more efficiently accomplished where the content has been encrypted. MPAA Comments at 12. This is not correct. There is no material difference in triggering use of DTCP for content marked with the Broadcast Flag without encryption or for encrypted content. In either case, the device will need to read the EmCCI bits and respond accordingly. The process is equally efficient with or without encryption. Given the policy reasons against use of encryption to signal redistribution control, such uses should not be permitted.

## IV. The Commission Should Reject MPAA's Backdoor Request for Selectable Output Control.

DTLA opposes adamantly the use of selectable output control. DTLA has rebuffed consistently and flatly demands by some content owners to incorporate selectable output controls into the DTCP license agreements. Selectable output control is inherently anti-consumer and, therefore, detrimental to the goal of the DTV transition to provide the consumer with incentives to invest in new digital entertainment products and home networks. Consequently, selectable output control undermines marketplace incentives for manufacturers to create innovative new products and features, if such features essentially could be turned off (with or without warning) by any content owner. The idea that a consumer, having invested thousands of dollars in new equipment, might never realize the full potential viewing or recording capabilities of that equipment, and might never know when such potential will be granted or denied at the whim of a content owner, should be anathema to the Commission, as it is to the 5C companies.

Therefore, DTLA opposes the MPAA's suggestion that a content owner should be permitted to apply selectable output control (and, by implication, that all manufacturers' products must support it) apparently so as to avoid potential royalty obligations to those who create protection technologies. MPAA has made no effort to show that its asserted concern is anything more than a phantom or pretext. MPAA has not identified any specific legal statute, case precedent or regulation by which this spectral liability might be imposed. Indeed, they explicitly state that they are not aware of any patents or allegations that could be asserted against them, and do not concede that they would have any liability were such claims to be lodged. MPAA Comments at 7, n. 6.

Of course, there is no risk to any content owner from the use of DTCP, inasmuch as DTLA has explicitly represented to content owners that DTCP may be triggered, consistent with the Encoding Rules, without incurring intellectual property liability to DTLA or the Founders, and this representation is set forth in the IP Statement publicly posted on the DTLA website, http://www.dtcp.com/data/IPStatement07102001.pdf.[6] Notwithstanding, DTLA does not mean to suggest that other technology proponents must follow DTLA's chosen model, or that content owners should not have a responsibility to pay for protecting their content. Technology companies should be under no obligation to provide rights to their intellectual property for free just so content owners can charge for theirs.

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[6] DTLA noted in its Certification of the DTCP technology, filed with the Commission on March 1, 2004, that for historical reasons primarily having to do with prior export control regulations, the IP Statement did not extend to the use of the EPN state to protect digital terrestrial broadcast content. DTLA has represented to the Commission in that Certification that, upon certification of DTCP for use in protecting digital terrestrial broadcast content, DTLA will extend to all content owners a revision to the IP Statement that extends to the use of EPN for Unscreened and Marked Content. *See* Certification of DTLA for Approval of DTCP, MB 04-___ at 19 and Appendix 4 (March 1, 2004).

## V. The Marketplace, Not the Commission, Should Decide Acceptability of the Terms of Technology Licenses.

The goal of the Commission through the certification process should be to enable rapid certification of technologies based on the adequacy of the protections these technologies provide. Once a technology has been certified, the decisions then shift to the marketplace as to which technologies manufacturers prefer to implement, and which technologies content owners may seek to trigger through its contractual relationships with service providers, broadcasters and manufacturers. This selection process involves a complex weighing of numerous factors such as effectiveness, manufacturing complexity and costs, computational burdens imposed on processing functions, potential for economies, enforceability, the track record of the licensors, and acceptability of licensing terms (including the scope of granted rights, royalties and fees, intellectual property coverage, indemnifications and warranties, third party beneficiary rights, potential damages, and so forth). Competition among technologies thus also depends upon the right and ability to compete based on license terms, and the marketplace is best suited to determine whether and to what extent the technological attributes and licensing terms make for the most attractive package.

Some commenters, notably Philips and American Antitrust Institute ("AAI"), suggest that the Commission should exercise regulatory scrutiny and control over the specific detailed terms and conditions of all technology license agreements. In effect, they request the Commission to supersede, and thereby limit, the workings of the marketplace and to further assume the responsibility of antitrust authorities and the courts. DTLA respectfully submits that the exercise of such regulatory control by the Commission is both highly unnecessary and extremely counterproductive. Rather than ensuring robust competition, as the marketplace alone most ably can do, imposing *a priori* licensing constraints would deny licensees a host of procompetitive licensing options, increase the cost of licenses and harm the interests of consumers. By limiting and controlling the terms and conditions of license agreements, the Commission is more likely to restrain competition among technologies than promote it.

The marketplace, including major corporations with highly sophisticated engineering capabilities, intellectual property departments and business people, is best equipped to evaluate the acceptability of particular technology license terms. It should be up to the marketplace to decide the appropriate balance of terms and technologies – not government regulators.

### A. Certification is Not a Technology Mandate.

The certification process is not, as Philips suggests, a technology mandate. Certification only addresses whether, as set forth in the Commission regulations, a proposed technology meets the objective of effectively controlling indiscriminate redistribution. No company is required to use any particular technology from among the technologies certified by the Commission. As DTLA has urged, the Commission should adopt criteria that assure that multiple technologies can rapidly be approved, from among which approved technologies the marketplace participants may select. Given the relatively mature state of the art for content protection, any company possessing even modest skill in the field of cryptography has the ability and the right to create its own technology, and can seek certification from the Commission.

**B. Neither the Commission nor an "Independent Decisionmaker" Should Stifle Marketplace Competition based on Licensing Terms.**

The interest of the Commission should extend only to the technological ability of a particular technology to satisfy the goals of the regulations, in compliance with criteria adopted by the Commission. The Commission should not review or regulate the terms on which any technology is offered.

With due respect, the Commission has no expertise or authority with respect to evaluating the terms and considerations embodied in a license offer. There is no justification for the Commission to mandate the use of any particular license term as "pro-competitive," particularly inasmuch as the nature of a license as pro- or anti-competitive depends upon a balancing of the license terms in its entirety, according to the rule of reason.[7] If licensees disfavor particular license terms, they can seek to negotiate different terms, can choose to license alternative technologies, can create their own proprietary technologies, or can create their own competing technology to be offered on terms that the market may find more attractive. To the extent that any license term is *per se* unlawful, or that any license as a whole has anticompetitive effects, any licensee or prospective licensee remains free to seek legal recourse before a court or agency having jurisdiction over enforcement of competition laws. Thus, there is no need for the Commission to review, much less disapprove of, any technology based on the terms of a license agreement unless such agreement has been found to be unlawful by a competent adjudicatory authority.[8]

DTLA's Comments also suggested procedures with respect to future changes to license terms and obligations of certified technologies that would require far less invasive regulatory controls than those promoted by AAI or Philips. Where a license provides content owners an opportunity to raise objections to changes that would materially and adversely affect the integrity of the protection system or their rights under the license ("change management"), the

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[7] The Department of Justice and Federal Trade Commission "Antitrust Guidelines for the Licensing of Intellectual Property" confirms three key points in this regard:

1. Patents or other intellectual property rights do not in and of themselves confer market power in the antitrust context.
2. Intellectual property licensing allows firms to combine complementary factors of production and, so, generally is pro-competitive.
3. The vast majority of IP licenses will be reviewed under a rule of reason analysis.

*See* "Antitrust Guidelines for the Licensing of Intellectual Property," U.S. Department of Justice and the Federal Trade Commission, §§ 2.0, 3.4 (April 6, 1995) (hereinafter "IP Guidelines").

[8] AAI's suggestion that proponents' licenses be reviewed by an "impartial decisionmaker" with "expertise in intellectual property licensing" is wholly unnecessary, and can lead only to delay, additional expense, and decisions that are inconsistent with adjudicatory determinations that otherwise might be rendered by a court having jurisdiction over competition law. There is no reason to create additional infrastructure to replicate functions that already are within the jurisdiction and responsibility of the judiciary.

marketplace has addressed the issue and the Commission need not become involved. For licenses without change management provisions, a streamlined process should be adopted whereby the licensor can give notice of the changes, and affected parties could raise objections in the same manner as under the initial process of certification. *See* DTLA Comments at 12-13.[9]

Such regulatory controls are particularly unnecessary with respect to the DTCP license, which explicitly limits the circumstances under which changes may be made by DTLA. As set forth at § 3.3 of the Adopter Agreement and § 3.7 of the Content Participant Agreement:

- DTLA will not require material changes to the Specification for DTCP.
- DTLA may make changes to enable DTCP to be used over additional interfaces, and reserves the right to correct omissions or errors to the Specification, or to make changes that would clarify, but not materially amend, alter or expand the Specification.
- Content Participants possess specified "change management" rights with respect to certain proposed amendments to the DTCP Specification and the terms of the DTCP Adopter and Content Participant Agreements.
- Adopters participate in a Content Protection Implementers Forum ("CPIF"), and are provided with 30 days' advance notice and opportunity to comment on draft changes to the Specification or the Compliance Rules.
- From time to time, DTLA may convene meetings of the CPIF to discuss proposed changes and permit open discussion among CPIF members and DTLA.
- Adopters have an 18-month minimum grace period to implement any required changes to the Specification, while they are permitted to implement upon adoption any voluntary changes that add new features not previously addressed in the Specification (*e.g.*, the adoption of a new Specification adapting DTCP to an additional interface) or the Compliance Rules (*e.g.,* permitting a "move" of Copy One Generation content stored on a PVR to a different recordable medium)

[9] DTLA notes that the MPAA proposed procedural regulations suggest that the making of changes to the technology, other than as authorized under a change management or Commission process, should by itself result in de-listing or decertification of the technology. MPAA Comments Appendix A at 8. DTLA believes it is not necessary or advisable to delist the technology without a finding that such changes actually would be material and adverse, or without a showing that the prior version of the technology could no longer be implemented or meet the Commission's certification criteria.

- Changes to fees may be made upon 30 days' prior notice, effective with the next fee period; notwithstanding, DTLA has committed to take commercially reasonable efforts to reduce its fees as costs decrease.[10]

DTLA does not suggest that all (or any) other licenses must or should have similar provisions. Rather, such provisions illustrate that the marketplace already provides sufficient incentives to change technologies, if at all, in ways that ultimately will benefit licensees. If the market desires more or less certainty with respect to any future changes to license terms or technological features, then licensors will be able to compete on that basis.

Philips hypothesizes that the licensors might have a lead time to market advantage unless changes to the technology are ruled upon by an independent decisionmaker, under an adversary system. Such a proposal, first, ignores the context of this regulation. Content protection is not the type of product attribute that ordinarily provides manufacturers competitive advantages in the marketplace. Second, Commission control over the timing and substance of changes to license terms can be detrimental to content protection and innovation. Delays can prevent a technology licensor from improving its technology, remedying flaws or counteracting hacks. Allowing competitors to comment upon and challenge technological improvements likewise can restrain innovation. If Commission regulations were to prohibit a licensor from implementing beneficial new technologies until its competitors evaluate and challenge the technology (and, potentially, come out with their own similar technological improvement), then the Commission will distort the normal operation of the market and remove key incentives to innovate and, thereby, stifle rather than promote competition.[11]

### C. The License Terms Addressed in the Philips and AAI Comments are Procompetitive.

Typically, agreements that jointly license intellectual property of many companies are recognized under antitrust precedents to be pro-competitive.[12] The particular licensing model used by DTLA narrowly defines the scope of "necessary" patent claims, and licenses all such

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[10] DTLA has not increased its fees under either the Adopter Agreement, the first of which was executed in 1999, or the Content Participant Agreement, the first of which was executed in 2001.

[11] This argument moreover ignores a natural aspect of intellectual property licensing. Those who invent particular technologies have the inherent advantage of knowing and marketing them sooner than anyone else. That "first mover advantage," of course, is one of the incentives to creation of new technologies, and any regulation that deprived technology creators of this earned benefit would rather clearly deter innovation.

[12] *See* IP Guidelines, § 5.5 ("These arrangements may provide procompetitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation. By promoting the dissemination of technology, cross-licensing and pooling arrangements are often procompetitive.").

claims owned or controlled by the licensor(s) for the purpose of implementing the technical specification of that particular protection technology.[13] The licensor charges fees that are lower than typical commercial royalty rates. In return, the licensee agrees not to assert any of its "necessary" patent claims, within that scope, against any other licensee (here, the Adopters that implement the DTCP technology and the Content Participants that invoke its use). This system creates a "safety zone" in which all who wish to use a low-cost technology check their guns at the door, and lower the risk for all other licensees who wish to trigger or implement the protection system. The owners of many technologies – and their scores of licensees – have deemed this approach an appropriate one for digital video copy protection and related technologies, because it is sensible and pro-competitive.[14]

Content protection technologies can benefit consumers by providing incentives for release of digital content. Notwithstanding, content protection technologies are not themselves digital product offerings for which consumers will pay higher prices. DTLA therefore is not charging the type of commercial royalty rates that the 5C Companies typically would charge for their intellectual property, but instead are offering DTCP with an eye to cost recovery. Adopters are offered two pricing methods, and can elect whichever model is less expensive and better suited for its needs. As a result of this licensing model, consumers and all licensees benefit from the lower costs, and manufacturers are free to compete in the marketplace based on product features of interest to consumer, without erecting extraneous roadblocks from content protection.

DTLA licenses only "necessary claims" as defined in the Adopter Agreement and Content Participant Agreement, thus providing licensees with all patent claims, trade secret and copyright rights owned or controlled by the 5C Companies, as needed to implement the DTCP Specification. Hence, licensees are not compelled to take any rights they do not want, yet are assured of receiving the rights they need that are owned or controlled by the 5C Companies.

Licenses are offered to all parties on a nondiscriminatory basis. Any early Adopter or Content Participant may also receive the benefit of any license term that DTLA promulgates in a subsequent license, and so there is neither prejudice from signing early nor palpable benefit from signing later.

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[13] "Necessary Claims" in the DTCP agreements, in brief, are limited to those patent claims owned or controlled by the 5C Companies that must be infringed to make a product that complies with the protocols and cryptographic algorithms, packet formats and data structures disclosed in the DTCP Specification. The license grant further extends to all copyright and trade secret rights owned or controlled by the 5C Companies embodied in the Specification for DTCP. *See* Adopter Agreement ¶¶ 1.22 and 5.2; Content Participant Agreement, definition of "Necessary Claims" at 7, and ¶ 2.1.

[14] For example, licenses for CSS (for DVD video discs), CPPM (for prerecorded DVD audio discs), CPRM (for certain recordable DVD discs and for content stored on SD memory cards), HDCP (for the DVI and HDMI interfaces), and the HDMI format, all utilize this same balanced necessary claims/reciprocal covenants licensing model.

Administration services for licenses to DTCP are provided pursuant to contract with an independent entity, License Management International, LLC. DTLA has taken this and other steps to insulate potentially competitively-sensitive information from disclosure to the 5C Companies.

Licenses, policy statements, and informational versions of the DTCP Specification (*i.e.*, versions without confidential information), are made available to the public on the DTLA website, http://www.dtcp.com, for downloading without registration or charge.

These provisions provide all licensees with a low-cost technology solution, on reasonable terms, administered in a fair, transparent and nondiscriminatory manner.

One striking aspect of the spirited attack launched by the Philips and AAI Comments, is that while they vaguely contend that a license term in the 5C license is "anticompetitive," they nowhere show that any terms of the agreements are *per se* unlawful,[15] or that the license agreement as a whole does not satisfy rule of reason analysis. (Curiously, the AAI paper discusses the purported impact of license terms on competition in the abstract, but fails even to mention the rule of reason standard or its impact on the mode of analyzing the pro-competitive nature of copy protection licenses.) Instead, they attempt to dissect individual provisions of the license, without reference to either the remaining provisions of the license, or to the impact that changing the provisions they apparently don't like could have on the provisions they apparently do like.

Yet even the most specific example given by Philips and AAI -- the reciprocal covenant to necessary claims given by a licensee to all other licensees – is pro-competitive in nature.

- The covenant, set forth at § 5.3 of the Adopter Agreement and §2.2 of the Content Participant Agreement, is extremely limited in scope. It applies only to the licensee's "necessary" patent claims and trade secret and copyright claims in connection with the use by other licensees of the DTCP Specification.[16]

- The reciprocal covenant provision is non-exclusive, so has no impact on innovation in copy protection technology or on competition outside of the use of DTCP. Nothing in the DTCP license prevents any Adopter or Content Participant from licensing its patents on whatever terms it wishes in connection with any

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[15] Such "per se" unlawful provisions include naked price-fixing, output restraints, and market division among horizontal competitors, certain group boycotts and resale price maintenance – none of which is implicated by the DTCP license. Reciprocal covenants not to sue are not *per se* unlawful; even mandatory grantbacks of unnecessary improvement patents developed by a licensee are to be judged under the rule of reason. *See* IP Guidelines § 5.6, *citing Transparent-Wrap Machine Corp. v. Stokes & Smith Co.*, 329 U.S. 637, 645–48 (1947).

[16] Also, the covenant explicitly does not deprive the covenantor of defensive use of its intellectual property, in that it does not extend to any other licensee that asserts a "necessary claim" against the covenantor.

technology developed by that licensee (including in a competing content protection technology). Any Adopter or Content Participant has full incentive to create and license its own technology unhindered by the covenants in the DTCP licenses.[17]

- The covenant limits the ability of any licensee to sue or to exact supracompetitive fees from other licensees. This reduces the litigation risk for all licensees, and lowers the cost of obtaining rights essential to compliance with the DTCP Specification under the license, to the benefit of all participants and, ultimately, consumers.

- Neither DTLA nor any of the 5C Companies obtains by virtue of this agreement any greater license or right with respect to any licensee's intellectual property rights. The reciprocal covenant extends precisely the same scope of covenant to all Adopters (including the 5C Companies) and all Content Participants.

Thus, the reciprocal covenant in the DTCP license does not inhibit competition. Licensees continue to have incentives to innovate, and retain full right and ability to innovate and to license their intellectual creations in competing content protection technologies or in any field of use. By reducing the risk of litigation to all licensees, the restrictive covenant is an integral part of a balanced licensing structure that reduces the cost of the DTCP license, and thereby facilitates competition among product manufacturers based upon product features. Therefore, the restrictive covenant is procompetitive and beneficial to consumers.

Every DTCP licensee obtains the full benefit of this provision and of its impact on the overall structure and cost of the DTCP licenses. Reciprocal covenants are in common use in this field, and are included in licenses for CSS, HDCP, CPRM, and HDMI, among others. DTLA thus notes that Philips, as a licensee of many such content protection technologies, also has reaped these benefits. And, although curiously omitted in the Philips Comments, the HDMI license agreement that requires these supposedly "anticompetitive" royalty-free covenants not to sue includes Philips among the licensors. Equally inexplicable is that Philips commends the DFAST license model for providing for royalty-bearing grant backs, yet ignores that the DFAST license authorizes the use of only two digital output protection technologies – DTCP and HDCP – both of which use the reciprocal covenants that Philips chooses to criticize in this proceeding. *See* Philips Comments at 25. Indeed, DTLA wonders how Philips can believe that the DTCP license could be anticompetitive in connection with this proceeding, but that DTCP and HDCP

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[17] For example, Philips submitted to the BPDG a transmission protection technology for the IEEE 1394 interface known as "OCPS," that relied upon authentication and encryption and, in key respects, operated in exactly the same manner as DTCP. Nothing in the DTCP license, including the reciprocal covenants, would preclude Philips from exploiting its own intellectual property rights in OCPS or licensing OCPS to others. *See* Broadcast Protection Discussion Group Home Page, http://www.cptwg.org/Assets/BPDG/home%20page.htm (last visited March 13, 2004).

could properly be approved -- upon Philips's signature urging this Commission to support all aspects of the Plug and Play Agreement – in a parallel Commission proceeding.[18]

Of course, no company is required to license the DTCP technology for purposes of protecting Unscreened or Marked Content. And, DTLA has urged the Commission to adopt procedures and criteria that ensure the rapid approval of multiple alternative technologies, so that any company that disagrees with the terms of any one technology license can certify and offer its own technology, or license other technologies, on terms that they find acceptable.

**D. DTLA Opposes a Requirement of Automatic Approvals of Other Certified Technologies.**

The Commission should not, as Philips suggests, require any certified technology automatically to permit use downstream of any other content protection system approved by the Commission. DTLA considers interoperability to be highly desirable, and well appreciates the economic and social benefits of network effects. DTLA has worked assiduously with every technology company that has requested approval of an output or recording protection technology, and has not refused any request. Approvals have been granted by DTLA for the use of D-VHS, HDCP, CPRM and, very recently, CPS for BD-RE, to continue to protect content received via DTCP; another recent request is under active consideration. However, it is unreasonable and impractical for the Commission to impose automatic approval of other technologies for several reasons.

DTCP, as a link protection technology, is only as strong as the next link in the chain of protection. DTLA has an independent obligation to ensure that it hands off content only to technologies that provide protections, through technology and enforcement, that are at least as stringent as those applied to DTCP. Otherwise, DTLA cannot protect the value of DTCP to its Content Participants, its Adopters and its founders.

If, as a result of such an automatic approval, Content Participants and other content owners withdrew their use and approval of DTCP, such withdrawal would have a serious detrimental impact upon DTCP and all licensees who had invested in manufacturing DTCP-

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[18] In this connection, the Commission in its Report and Order and the MPAA Comments applaud the willingness of several companies to implement the broadcast flag regulations by July 1, 2004. R&O at 27 ¶ 57; MPAA Comments at 2. Clearly, such early implementation is likely or possible only if technologies already in products are certified by the Commission for use in applying redistribution control also to digital terrestrial broadcast television programming. If the Commission credits the objections of Philips and AAI with respect to use of reciprocal covenants, then neither HDCP nor DTCP (nor any of the other above-referenced technologies that commonly use reciprocal covenants) will be approved for use in protecting Unscreened and Marked Content in any Demodulator Products (including those in DTVs and cable boxes), and slight likelihood of compliance with the Commission regulations even by July 2005. Indeed, had the Commission credited these specious contentions in the context of the Plug and Play proceedings, the entire DTV transition would have ground to a screeching halt.

compliant products and components. In that connection, DTLA notes that under the DTCP license, Content Participants are afforded an express opportunity to object to approval of any digital output or recording protection technology, if they could establish that such approval could have a material and adverse impact on the protection of their content protected with DTCP or their rights under the Content Participant Agreement.

Such automatic approval also carries potentially detrimental consequences for consumers. DTCP can be used to protect multiple types of content, not just digital terrestrial broadcast television. The same "EPN" setting that is used for redistribution control of broadcast content also can be applied to all other types of Commercial Entertainment Content—including pay per view and subscription content that can be marked Copy Never and Copy One Generation. Simply because a downstream technology (including its compliance and robustness rules) is considered adequate for protection of broadcast content, does not mean that such a technology would be considered by content owners to be sufficiently protective of higher value content that also might be marked with EPN.[19] If content owners cannot rely on the protective features of EPN for such higher value content, they will not use EPN for such purposes, to the detriment of consumers.

Moreover, no one can assure that any two technologies will be sufficiently compatible, or will be able to accurately carry forward any protection rules associated with one technology, so as to implement the protections offered by each technology in an equivalent and meaningful way. To the extent that automatic approval creates anomalies in protection schemes due to incompatibilities, such anomalies could harm the interests of all parties concerned – content owners, technology licensors, implementers and consumers.

As nice as automatic interoperability may sound in the abstract, no one can predict reliably how such a rule would work in practice. Any unintended consequences could significantly undermine the integrity of the Commission's effort. DTLA thus believes that decisions as to interoperability are best left to the marketplace, and should not be imposed by Commission regulation.

### E. The Commission Need Not Set a Ceiling on Robustness.

Similarly, the Commission should not accept Philips's proposed requirement that no technology license should require higher robustness standards for downstream technologies than the Commission imposes upon broadcast content. All robustness standards, whether by regulation or license agreement, set a floor for protection, not a ceiling as Philips suggests. If potential licensees believe that a particular technology license imposes terms that are overly stringent, the marketplace will migrate to other technologies. However, it makes no sense that

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[19] DTLA notes, as an example, the Petition for Reconsideration filed in this proceeding by the MPAA, in which the motion picture companies express displeasure with the disparity between the robustness rules set forth in the Commission regulations and the DTCP licenses. While the decision as to the proper minimum robustness level for broadcast content is within the purview of the Commission, the Commission should not predetermine that level for *all* content that might otherwise be marked with EPN.

any particular product should apply different robustness standards depending upon the type of content it is protecting. As noted previously, for DTCP, which can apply EPN to a variety of content that could otherwise be copy protected, applying a lower level of robustness to EPN content could create disincentives for content owners to mark their content with the EPN setting, to the detriment of consumers.

More to the point, it is likely that most, if not all, certified protection technologies will be capable of protecting more than just Unscreened and Marked Content, and will protect higher value, early-window content to a high level of robustness. It would be nonsensical for Commission regulations to require, in effect, that devices implement the same technology at two disparate levels of robustness.

### F. Brief Reply to Additional Comments of AAI

DTLA addresses briefly below certain additional points in the AAI paper.

1. AAI's analogies to the law governing patent pools is particularly inapt. DTCP is a jointly developed technology whose license includes trade secrets and copyright in the Specification as well as patent rights. Unlike a patent pool, DTLA has a continuing relationship with its licensees through the issuance and licensing of cryptographic device keys and certificates. Thus, DTLA is the licensor of a technology (not patents) and the authority for issuance of required cryptographic certificates for that technology – not a patent pool.

2. AAI's suggestion that all licensors should be required to identify all licensed patents imposes additional costs at no benefit to licensees. First, DTLA has licensed the Specification and has provided complete assurance to its licensees that it has provided them with a license to all necessary patent claims, trade secret and copyright rights used in the Specification that are owned or controlled now or in the future by the founders. These assurances to DTCP Adopters and Content Participants are pro-competitive, in that they facilitate competition based on product features that are meaningful to consumers. Second, identifying particular patents poses the risk of being underinclusive, and thus could unintentionally expose Adopters and Content Participants to potential liability. Third, an identification requirement would impose on the 5C Companies (and, ultimately, the licensees and consumers) hundreds of thousands of dollars in extraordinary and unnecessary costs to retain an independent expert to evaluate the extensive patent portfolios in the field of cryptography of these five major technology companies who annually are among the leaders in obtaining patents worldwide. Fourth, patent evaluations also do not take into account all other intellectual property rights being licensed by DTLA. Indeed, AAI articulates no reason why a technology proponent should not be able to certify its technology with the Commission based on copyright and trade secrets alone, without any patent protection whatsoever. Fifth, and perhaps most importantly, the concept of independent patent evaluation is most applicable to patent pools (which this is not) under circumstances in which the licensor pool assesses royalties at commercial rates, where the amount or reasonableness of the royalty relates to the number or strength of particular patents. Where license fees are based on the cost of administering the license and issuing cryptographic keys and certificates, and not on commercial royalty rates, the *results* of an independent patent evaluation would have no impact on reducing the license fees (although the *cost* of such an evaluation would substantially increase the fees).

3. It is unnecessary, as AAI suggests, to disapprove technologies that impose higher levels of protection than otherwise required by the regulation (*e.g.,* required use of Macrovision or CGMS-A on analog outputs not subject to the Commission's regulation). Effectively, such a requirement eliminates the economic efficiency of permitting technologies that are already being licensed and used to protect non-broadcast content handled by the licensed devices, from also being used to protect content marked with the broadcast flag. For example, DTCP is being used for content delivered via cable, satellite, prerecorded media; use of EPN for broadcast protection is available without additional license or fee. To the extent that AAI is concerned that extraneous copy protections might be applied to content marked with the Broadcast Flag, such concerns can be addressed by the Commission via encoding rules, and in marketplace implementations of redistribution control.[20]

DTLA thanks the Commission in advance for its consideration of these Reply Comments and urges the Commission to adopt the proposals set forth in Appendices A and B to its Comments.

Respectfully submitted,

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[20] DTLA notes, for example, that the recently-adopted CEA standard, CEA 805-A, includes both an "RCI" descriptor for indicating the presence of the Broadcast Flag, and an explanatory note in sections 4.4.2 and 4.4.3.8 that the Macrovision APS technology should not be turned on where the copy control information in CGMS-A indicates that copy controls are not asserted.